



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/818,602	03/28/2001	Shinji Uchiyama	2355.12110	1884

5514 7590 12/23/2002

FITZPATRICK CELLA HARPER & SCINTO  
30 ROCKEFELLER PLAZA  
NEW YORK, NY 10112

EXAMINER

LAU, TUNG S

ART UNIT	PAPER NUMBER
----------	--------------

2863

DATE MAILED: 12/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/818,602

Applicant(s)

UCHIYAMA ET AL.

Examiner

Tung S Lau

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 October 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24 is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-23 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- a. Claims 1-3, 6-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuwashima et al. (U.S. Patent 5,764,786) and Iijima et al. (U.S. Patent 6,445,814).

Kuwashima discloses a position determination apparatus, method, program code and storage medium which identifies position parameters and captures means in three-dimensional array real space (col. 2, lines 10-35, col. 4, lines 4-12, fig. 1-48), measuring position in a method other than using a capture picture (fig. 7-37), detecting features in two-dimensional array (col. 5, lines 13-19), predicting positions (col. 7, lines 12-21), the three-dimensional position are known (col. 4, lines 4-12), detecting image on a pickup screen (fig. 5, 6), superimpose image (col. 5, lines 6-31), image is drawn of a virtual object (fig. 15-23), use of sensors (col. 37-38, lines 65-49), rotates or translates for image calculation and

Art Unit: 2863

transformation correction (col. 40-41, lines 20-17), use of average value in calculation with points in space (col. 7, lines 46-65).

Kuwashima does not disclose the correction unit to correct a parameter measured position and orientation of the capture unit.

Iijima disclose such application (col. 11-12, lines 65-40, 12-13, col.63-19, col. 19, lines 54-65), in order to increase the reliability of the detection system and to detect shape information on the base of an angle, location, distance, and area ratio of the object (col. 5, lines 35-52).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kuwashima to have the correction unit to correct a parameter measured position and orientation of the capture unit taught by Iijima in order to increase the reliability of the detection system and to detect shape information on the base of an angle, location, distance, and area ratio of the object.

Kuwashima does not disclose the process between prediction and calculation stop when the error cannot be smaller, it would have been obvious to one of ordinary skill in the art at the time the invention was made to know that the process should stop when the error between them can not be smaller because the system already reach the limitation of its physical capability, Kuwashima does

point out such system will introduce an error parameter (col. 20, lines 1-46, col. 35-36, lines 56-4).

### **Claim Objections**

2. Claims 4, 24 are allowed. Claims 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitation of the base claim and any intervening claims.

As regards to claims 4 and 24:

The following is an examiner's statement of reasons for allowance: prior art fail to teach the use of an virtual object based on the corrected parameter and to superimpose the image of the virtual object on the picture in the real space capture. It is these features found in the claim, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes this claim allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection. However, applicant's arguments filed 10/30/2002 have been fully considered but they are not persuasive.

A. Applicant argue that Kuwashima fails to disclose the location based on the status of the camera is corrected using an image. Iijima disclose such application (col. 11-12, lines 65-40, 12-13, col.63-19, col. 19, lines 54-65), in order to increase the reliability of the detection system and to detect shape information on the base of an angle, location, distance, and area ratio of the object (col. 5, lines 35-52).

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

Art Unit: 2863

advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

<sup>4</sup>  
3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S Lau whose telephone number is 703-305-3309.

The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 703-308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-5841 for regular communications and 703-308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

TC2800 RightFAX Telephone Numbers : TC2800 Official Before-Final RightFAX - (703) 872-9318, TC2800 Official After-Final RightFAX - (703) 872-9319

TC2800 Customer Service RightFAX - (703) 872-9317

TL



**BRYAN BUI**  
**PRIMARY EXAMINER**